

Birds and the Earth

Grades: 3rd-Adults

Goals: Explain how birds are an important part of our ecosystem.
Learn the major parts of a bird (tail, dorsal feathers, beak, etc.)
Explain the ways to identify birds (visual, audibly, habitat, and mannerisms)
Discuss the different foods birds eat/how their beaks indicate what foods they eat
Discuss different “houses” birds live in (cavities, nests, ground, etc.) and what they use to make their nests
Brainstorm how kids can help to maintain a healthy bird population

Introduction

Residents of Crawford County could potentially see close to 300 different species of birds. Some birds are here only in the winter, some only in the summer during the breeding season, some are seen in the spring or fall only briefly as they migrate to their summer or winter homes and some are found all year ‘round.

Ask the kids to name some _____

Now how are birds important to us here in Northern Michigan? _____

Birds help us connect to nature
Fun to watch and observe
Help us forecast the weather
Tell us about the insect populations (good or bad)
Show us how healthy a specific habitat is

What is needed to bring birds into your yard or area? Let’s examine this question. Birds need the following: food, water, shelter (homes), escape cover and space. Do we have that here at our feeding station at Hartwick Pines?

Programs

BIRD ANATOMY

Show diagram of the different parts of a bird and how they’re used to help with the identification of different species.
Explain how some of the “parts” can help with the identification (toes of a woodpecker, wing feathers {American Tree Sparrow dot}).
Explain the various beaks and what they tell us.
Discuss size (compare to familiar birds e.g. Robin)

BIRD SONGS, CALLS AND MANNERISMS

Briefly explain the difference between calls and songs. Talk about mannerisms (Phoebe’s tail bobbing, head-wagging of Woodpeckers, etc.) Use the Bird Identifier© to show the different calls birds make.

WHAT BIRDS EAT AND HOW THEY EAT

Show the students the various kinds of seeds and foods that birds eat. Describe them and give examples of what kinds of birds eat what. Describe the different kinds of feeders available to buy or make.

Show diagram of the various beak designs and how they are adapted to eat certain foods (Hummingbirds, Woodpeckers, Finches, Herons, etc.)

WHERE DO BIRDS LIVE?

Describe the different places birds live. Birds will use elements from their surroundings to build their nest (wetland plants for wetland birds, woodlands plants for forest-dwelling birds and even shiny things are used to decorate the nests of some birds {blue jays, crows and ravens}, my dogs' hair in the Chipping Sparrow nest at home).

ACTIVITIES

1. Play the Food Web Game

Materials

Ball of String

Arrange the students in a circle and explain how they are going to be part of a food web to better understand how important to our ecosystem birds are. Take the end of the string and handing it to a student, ask them to name a bird they've seen at their house or even one that they have heard about (in Michigan). Let's use the example of a red-tailed hawk. Moving directly across from that student, take the ball of string to another student and ask him or her to name something that a hawk eats or some bird that would eat a hawk. Let's say the student says a chickadee. Move across the inner circle to another student and repeat the process of selecting a bird or type of food until everyone has a hold of a piece of string and is representing a bird or food. The center of the circle should be a criss-crossed mass of string. Pick one of the students and have them say aloud what they are, a hawk for example. Tell them to make believe that something terrible has happened to the hawk population and that it temporarily drops. Have that student vigorously shake his/her portion on the string. The vibrations should move through the entire circle, more in some places and less in others. Ask the students who felt the vibrations. Everyone who felt a vibration is somehow affected by the lower population of hawks. A student who is sunflower seeds should say yes too and ask them if hawks eat sunflower seeds (the reply should be no). Ask them why they felt a vibration. The explanation is that everything in an ecosystem is connected. So if the population of hawks goes down, then the population of chickadees may increase, which in turn would have chickadees consuming more sunflowers seeds.

Try the exercise a few more times and then wrap the exercise up by reviewing how important birds are to the ecosystem and not having them to help control the mosquitoes would be a bad thing indeed. Move to the next activity by saying how they can help keep the bird population up by offering birds a place to raise their young. Let's build a birdhouse!

2. Make or design a birdhouse

(materials and help from volunteers/adults will determine what types of birdhouse-building activity can be done)

Materials

Pre-cut Boards for the Walls, Floor and Roof of the Birdhouse

Markers

Paints (washable)

Paint Brushes

Stencils

Show the students the various kinds of birdhouses that are available to make and how to put them together. Let them decide which ones they want to make. With the assistance from the adults have them put the pieces together.

-or- Have the birdhouses already assembled and they can design them with paint or markers.

-or- Have the birdhouse parts in a packet and they can decorate them at the park and an adult can help them put the birdhouse together when they get home.

3. Make their own bird treat to take home!

Show them the different kinds of seeds that can be used to fill feeders. Describe how different feeders attract different kinds of birds.

Materials

Pine Cone (Red or White Pine)

Peanut Butter

A Pan of Bird Seed (Black-oil Sunflower, Safflower or Nyjer)

Piece of String

Wooden Tongue Depressors

Take the piece of string and attach it around the stem (if available) of the pine cone. Scoop some peanut butter onto the tongue depressor and smear the peanut butter into the empty spaces of the pine cone. Once the cone's crevices are mostly filled, roll the pine cone into the seeds, coating the peanut butter with seeds. Instruct the students that they can hang this cone from a branch of a tree to feed the birds. Explain that it could take some time for the birds to find the pine cone treat but be patient; eventually some birds will find it. Tell them to record which birds like the treat the best. Have them try other types of seeds and see what birds it attracts.